

Polyaddition compounds containing uretdione groups prepared by reacting uretdione polyisocyanates formed from diisocyanates having exclusively secondary- and/or tertiary-attached isocyanate groups with a molar fraction of isocyanurate structures, based on the sum of uretdione groups and isocyanurate groups, of not more than 10%, with compounds reactive towards isocyanates. The polyaddition compounds can be used as a starting component in the preparation of polyurethane plastics, in particular as crosslinkers for heat-crosslinkable powder coating materials. The compounds may be used as starting components in the preparation of moldings and shaped parts, and as starting components in the preparation of coating materials and coatings.-